Ash Grove Cement Company/Western Region

Interoffice Memorandum

February 12, 1993

To: Dan Peters

From: Hans E. Steuch

Subject: Plant waste oil system

Copy to: DYH

Route to: WHS

The plant waste oil system was started for the first time on February 11, 1993. The installed system was close to the concept shown in the attached drawing.

During the first five hours the system was drawing oily water and injecting it into the east calciner hole at a rate of 1.7 to 2.0 gpm. All valves were fully open. The air atomizing pressure for the nozzle was set at 40 psi, which gave sufficient atomization. The preheater temperatures and the kiln performance were not noticeably affected by this injection rate. If desirable, the pumping rate can be reduced with the valve nearest the pump.

The two tanks can hold about 750 gallons each - 12 gallons per inch of height. At a pumping rate of 2 gpm this means that the level in the tanks should drop about 10 inches per hour and the two full tanks can be emptied in about 12 hours. It is expected that it will take the plant several months to fill the tanks, so the system would only be used a couple of times a year. That is why we designed a simple system, manually controlled. If desired, the pump can be interlocked with the other fuel sources to protect the kiln, and with a line pressure or flow device or timer to protect the pump from running empty.

As currently arranged I suggest maintenance notifies production when it is time to empty the tanks. Then production does the following:

To start system:

- Get clearance from control room.
- Go to calciner, turn air to waste oil nozzle on at 40 psi and insert nozzle in calciner. Open waste oil valve by calciner fully.
- Go to ground level, SW corner of preheater. Open line valves fully and valves to the tank or tanks that should be drawn from.
- Start pump.

To shut off system:



1.

Stop pump.
Close valves to tank(s).
Remove waste oil nozzle from calciner and turn off air to 2. nozzle.

